UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,358	08/27/2003	Norio Sanma	03-036	3430

23400 7590 11/03/2006

POSZ LAW GROUP, PLC
12040 SOUTH LAKES DRIVE
SUITE 101
RESTON, VA 20191

EXAMINER	
SINARS, JAMES R	

ART UNIT	PAPER NUMBER
2635	

DATE MAILED: 11/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/648,358	SANMA ET AL.	
	Examiner	Art Unit	
	JAMES R. SINARS	2635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

VU LE
SUPERVISORY PATENT EXAMINER

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 8/27/3.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

Page 6, Lines 14,15 and 18 read, "display 7"; they should read, "display 9", in accordance with Fig. 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraph of 35 U.S.C. 102 that forms the basis for the rejections under this section made in this Office Action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in — (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for the purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Edens et al., U.S. Patent 6,611,537.

Re: Claim 1, Edens et al. discloses a network adapter for a synchronous logical ring network, said network propagates continuous digital media information reaching every network device. (Abstract; Fig.7; Col. 9, Lines 47-67 continuing to Col. 10, Lines 1-7). The adapter (which corresponds to the host interface of Claim 1 and the device interface of Claim 2) comprises:

a first interface that communicates first data defined by a first protocol with a first device (Claim 1b, Fig. 9/2030), a second interface that communicates second data defined by a second protocol with a second device (Claim 1b, Fig. 9/2002,2004), and a controller that has a memory (Col 61, Lines 6-25; Fig. 9/2012), wherein the controller converts the first data to the second data defined by the second protocol when the first interface receives the first data from the first device, and transmits the second data to the second interface (To one of ordinary skill in the art, it is inherent in the function of a network adapter to act as an interface, performing protocol conversion between the protocol of a connecting network device and the protocol of the network itself.) at a first certain timing (Abstract; Col. 10, Lines 16-18, Edens et al. teach that information propagates along the network ring at the frame rate established by the master clock, (Col. 10, Line 55-59; Col. 25, Lines 57-54; Fig. 13(a)/2420). Therefore the consecutive timings of all data transmission between interfaces is regulated by the clock cycles.) the controller converts the second data to the first data defined by the first protocol when the second interface receives the second data from the second device, transmits the first data to the first interface (See comment for the reverse direction above.) at a second certain timing (See comment re: master clock timing above), and stores the first data in the memory (Col 61, Lines 6-14), and the controller transmits the first data stored in the memory to the first interface in response to a request from the first device (Col. 59, Lines 56-62) unless the second interface receives subsequent second data from the second device (Col. 60, Lines 15-19).

Re: Claim 2, a device interface comprising: a first interface that communicates first data defined by a first protocol with a first device (See discussion of claim 1b, Fig. 9/2030), a second interface that communicates second data defined by a second protocol with a second device (see discussion of claim 1b, Fig. 9/2002,2004), and a controller (Col. 61, Lines 6-25; Fig. 9/2012), wherein the controller converts the first data to the second data defined by the second protocol when the first interface receives the first data from the first device, and transmits the second data to the second interface (As commented in Claim 1, to one of ordinary skill in the art, it is inherent in the function of a network adapter to act as an interface, performing protocol conversion between the protocol of a connecting network device and the protocol of the network itself) at a first certain timing (Abstract; Col. 10, Lines 16-18, as commented in Claim 1, Edens et al. teach that information propagates along the network ring at the frame rate established by the master clock, Col. 10, Line 55-59; Col. 25, Lines 57-54; Fig. 13(a)/2420, thus the consecutive timings of all data transmission between interfaces is regulated by the clock cycles), and the controller converts the second data to the first data defined by the first protocol when the second interface receives the second data from the second device, and transmits the first data to the first interface (see comment for the reverse direction above) at a second certain timing (See comment re: master clock timing above).

Re: Claim 3, an interface system comprising: a host interface having a first interface that communicates first data defined by a first protocol with a first device (see discussion of claim 1b, Fig. 9/2030), a second interface that

communicates second data defined by a second protocol (see discussion of claim 1b; Fig. 9/2002,2004), and a first controller that has a memory (Col. 61, Lines 6-25; Fig. 9/2012), and a device interface having a third interface that communicates the first data defined by the first protocol with a second device (see discussion of claim 1b, Fig. 9/2030), a fourth interface that communicates the second data defined by the second protocol (see discussion of claim 1b, Fig. 9/2002,2004), and a second controller (Col. 61, Lines 6-25; Fig. 9/2012), wherein the second interface of the host interface is connected to the fourth interface of the device interface (Eden et al. teach that the network side of the network interfaces (Figs. 21(p)/3852, 21(q)/3902) connect to each other via the ring network (Col. 104, Lines 20-26; Fig. 7), the first controller of the host interface converts the first data to the second data defined by the second protocol when the first interface of the host interface receives the first data from the first device (As commented on in Claim 1, to one of ordinary skill in the art, it is inherent in the function of a network adapter to act as an interface, performing protocol conversion between the protocol of a connecting network device and the protocol of the network itself), and transmits the second data to the second interface of the host interface at a first certain timing (Abstract; Col. 10, Lines 16-18, Edens et al. teach that information propagates along the network ring at the frame rate established by the master clock, (Col. 10, Line 55-59; Col. 25, Lines 57-54; Fig. 13(a)/2420, thusthe consecutive timings of all data transmission between interfaces is regulated by the clock cycles), the second controller of the device interface converts the second data to the first data defined by the first

protocol when the fourth interface of the device interface receives the second data from the second interface of the host interface (See above comment w/r to a network adapter performing protocol conversion), and transmits the first data to the third interface of the device interface at a second certain timing (See comment above w/r to master clock timing), the second controller of the device interface converts the first data to the second data defined by the second protocol when the third interface of the device interface receives the first data from the second device (See comment above w/r to a network adapter performing protocol conversion), and transmits the second data to the fourth interface of the device interface at a third certain timing (See comment above w/r to master clock timing), the first controller of the host interface converts the second data to the first data defined by the first protocol when the second interface of the host interface receives the second data from the fourth interface of the device interface (See comment above w/r to a network adapter performing protocol conversion), transmits the first data to the first interface of the host interface at a fourth certain timing (See comment above w/r to master clock timing), and stores the first data in the memory (Col. 61, Lines 6-14), and the first controller of the host interface transmits the first data stored in the memory to the first interface in response to a request from the first device (Col. 59, Lines 56-62), unless the second interface of the host interface receives subsequent second data from the fourth interface of the device interface (Col. 60, Lines 15-19; Edens et al. teach that although a plurality of devices are able to connect to a logical ring network (Col. 11, Lines 36-38, Fig. 1, Fig. 7), only two network devices are

required to establish a logical ring network (Col. 13, Lines 41-45). These two devices correspond to the first device and second device in Claim 3 of the present invention. Edens et al. further teach that the network devices would connect to the network via two interface devices, each containing a core network adapter (Col. 58, Lines 20-31). These two interface devices correspond to the host interface and the device interface in Claim 3 of the present invention.)

Re: Claim 4, a computer program product for controlling a host interface, which has a first interface that communicates first data defined by a first protocol with a first device, a second interface that communicates second data defined by a second protocol with a second device, and a memory, the computer program product comprising: a first function for converting the first data to the second data defined by the second protocol when the first interface receives the first data from the first device, and transmitting the second data to the second interface at a first certain timing; a second function for converting the second data to the first data defined by the first protocol when the second interface receives the second data from the second device, transmitting the first data to the first interface at a second certain timing, and storing the first data in the memory; and a third function for transmitting the first data stored in the memory to the first interface in response to a request from the first device unless the second interface receives subsequent second data from the second device. (The computer program functions in Claim 4 correspond to the functional elements of Claim 3, which have been analyzed and rejected w/r to claim 3. The only additional element in Claim 4 is the computer program itself. Edens et al. teach that a "smart" CPU-

based controller device could be used to control I/O interfaces and read/write internal memory in the network interface device (Col. 61, Lines 6-14; Fig. 9/2030). This unit would inherently include a computer program product for control and would inherently perform the protocol conversion and all other functional elements of Claim 4.

Re: Claim 5, a computer program product for controlling a device interface, which has a first interface that communicates first data defined by a first protocol with a first device, and a second interface that communicates second data defined by a second protocol with a second device, the computer program product comprising: a first function for converting the first data to the second data defined by the second protocol when the first interface receives the first data from the first device, and transmitting the second data to the second interface at a first certain timing; and a second function for converting the second data to the first data defined by the first protocol when the second interface receives the second data from the second device, and transmitting the first data to the first interface at a second certain timing. (As commented in Claim 4, the computer program functions in Claim 5 correspond to the functional elements of Claim 3, which have been analyzed and rejected w/r to claim 3. The only additional element in Claim 5 is the computer program itself. Edens et al. teach that a "smart" CPU-based controller device could be used to control I/O interfaces and read/write internal memory in the network interface device (Col. 61, Lines 6-14; Fig. 9/2030). This unit would inherently include a computer

program product for control and would inherently perform the protocol conversion and all other functional elements of Claim 5.

Re: Claim 6, an interface system comprising: a host interface that communicates first data defined by a first protocol with a first device; and a device interface that communicates the first data defined by the first protocol with a second device, wherein the host interface converts the first data to second data defined by a second protocol when the host interface receives the first data from the first device, and transmits the second data to the device interface, the device interface converts the second data to the first data defined by the first protocol when the device interface receives the second data from the host interface, and transmits the first data to the second device, the device interface converts the first data to the second data defined by the second protocol when the device interface receives the first data from the second device, and transmits the second data to the host interface, and the host interface converts the second data to the first data defined by the first protocol when the host interface receives the second data from the device interface, and transmits the first data to the first device.

(The elements in Claim 6 also appear in Claim 3, which have been analyzed and rejected with no further mapping required.)

Re: Claim 7, the host interface according to claim 1, wherein the first protocol is one of an ATA and an ATAPI. Edens et al. teach that the network devices are able to use "virtually any protocol" (Col. 11, Lines 21-29), and the second protocol is different from the ATA and the ATAPI. For the second protocol, Edens et al. teach a protocol and architecture for a synchronous logical

ring network (Col. 9, Lines 56-61), also stating that one of a plurality of protocols are possible (Col 16, Lines 1-3).

Re: Claim 8, the host interface according to claim 1, wherein the first device is a host device. Edens et al. teach that the synchronous network may be implemented with a plurality of host device types (Col. 13, Lines 29-40), that the network devices connect to the network via interface devices which contain a core network adapter (Col. 58, Lines 20-31), and specifically include MPEG2 video data from an MPEG2 decoder (Col. 11, Lines 21-25; Fig. 21(o)/3814), and the second device is different from the host device (It is understood that the second device of the present invention is the device interface that connects the DVD drive to the LAN. This corresponds to what Edens et al. describe; connecting a DVD drive to the synchronous ring network using an interface device (Col. 104, Lines 20-26;Fig. 21(q), Fig. 7).

Re: Claim 9, the interface system according to claim 6, wherein the host interface and the device interface are provided in a vehicle. (Edens et al. teach that a synchronous ring network can be implemented in a plurality of environments including a car and a recreational vehicle (Col. 13, Lines 29-34).

Information Disclosure Statement

4. The foreign prior art references listed in the IDS are not on file at the USPTO. However, in order to expedite the examination of this application, a raw machine language translation of the documents was obtained so that they might be reviewed as applicable prior art. Therefore the foreign prior art listed in the

IDS will be considered as stated. The applicant is requested to resubmit the subject documents.

Contact

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES R. SINARS whose telephone number is 571-270-1191. The examiner can normally be reached on M-F (ALT FRI OFF) 7:30-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, VU LE can be reached on 571-270-9999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

James Sinars

VU LE
SUPERVISORY PATENT EXAMINER